AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A flip-chip BGA semiconductor device in which a semiconductor chip is mounted on a substrate by a reflow process;

comprising a stiffener that is bonded by ~~means of~~ an adhesive to an area surrounding said semiconductor chip on the a surface of said substrate on which said semiconductor chip is mounted;

wherein gaps are provided between said stiffener and said substrate that each extend outwardly from positions that confront two sides of said semiconductor chip and that communicate with ends of said substrate.

2. (Previously Presented) A flip-chip BGA semiconductor device according to claim 1, wherein a first gap of said gaps is provided across a width of a first side of said two sides of said semiconductor chip that said first gap confronts.

3. (Previously Presented) A flip-chip BGA semiconductor device according to claim 1, wherein a first gap and a second gap of said gaps are provided across widths of the two sides of said semiconductor chip that said gaps confront.

4. (Previously Presented) A flip-chip BGA semiconductor device according to claim 1, wherein said gaps are formed by depressions in the surface of said substrate on which said semiconductor chip is mounted.

5. (Previously Presented) A flip-chip BGA semiconductor device according to claim 1, wherein said gaps are formed by depressions in a surface of said stiffener that faces said substrate by making portions of said stiffener thinner than other areas.

6. (Original) A flip-chip BGA semiconductor device according to claim 5, wherein said adhesive is not provided in portions in which said depressions are formed.

7. (Previously Presented) A semiconductor device, comprising:

a substrate;

a semiconductor chip mounted on a first surface of the substrate by a reflow process;

a stiffener connected to the first surface of the substrate and laterally surrounding the semiconductor chip;

a first gap between the stiffener and the substrate extending from a first position adjacent to a first side of the semiconductor chip to a first lateral side of the substrate.

8. (Previously Presented) The semiconductor device of claim 7, further comprising a second gap between the stiffener and the substrate extending from a second position adjacent to a second side of the semiconductor chip to a second lateral side of the substrate.

9. (Previously Presented) The semiconductor device of claim 8, wherein the first and second sides of the semiconductor chip are opposite sides.

10. (Previously Presented) The semiconductor device of claim 7, wherein the first gap comprises a first depression formed in the first surface of the substrate.

11. (Previously Presented) The semiconductor device of claim 7, wherein the first depression extends closer to the semiconductor chip than a portion of the stiffener arranged above the first depression.

12. (Previously Presented) The semiconductor device of claim 7, wherein an adhesive connects the stiffener and the first surface of the substrate.

13. (Previously Presented) The semiconductor device of claim 7, wherein the first gap comprises a first depression formed in a first surface of the stiffener facing the first surface of the substrate.

14. (Previously Presented) The semiconductor device of claim 13, wherein an adhesive connects the stiffener and the first surface of the substrate, except that no adhesive is provided between the first depression in the first surface of the stiffener and the first surface of the substrate.

15. (Previously Presented) The semiconductor device of claim 7, wherein a width of the first gap, measured in a direction perpendicular to its direction of extension, is equal to a width of the first side of the semiconductor chip.

16. (Previously Presented) The semiconductor device of claim 7, wherein the semiconductor device is a flip chip BGA semiconductor device.